

Investigations into the Human Resource Development Status and its Impact on Farm Output in Rural Areas of District Jhang, Pakistan

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ABSTRACT

This study was conducted to probe into the human resource development (HRD) status in rural areas of district Jhang, selecting 80 respondents from four districts. This study also explained the impact of general and technical education, and health facilities on farm output. The data were collected by employing pre-tested questionnaire and were then analyzed mathematically and statistically. A comparative analysis showed that the condition of basic facilities like general and technical education and health was relatively better in the areas adjacent to the cities. Majority of the respondents regarded these factors as helping tools in increasing the agricultural output. The regression analysis of the data revealed that the variables like landholding, years of education, technical education and livestock were found to be significant. Correlation analysis revealed a strong interdependence of all major variables and farm output level.

Key Words: Agriculture; Investigation; Human resource development; Rural; Status

INTRODUCTION

Human resource development (HRD) is a planned approach to learning aimed at change in knowledge, skills understanding, attitudes, values and the behavior of a learner or a group of learners. It is often associated with technical goals aiming at the provision of a trained workforce to promote the knowledge and skills required by a society in order to acquire better prosperity. However, for some educators and development planners, HRD is an end in itself and its goal should be to realize human potential and developing individual self-reliance (FAO, 1996).

Peng (1996) explained that grain is something that is planted once and produces only a single harvest. Trees are planted once but may produce ten harvests. Men are things that are planted once but may produce a hundred harvests. First and the foremost element in HRD is education, which plays an important role for development of social and economic conditions of individuals, because it improves and flourishes the mental approach in true sense and brings confidence for doing something. It enhances the capabilities, improves efficiency and productivity of a man. Education is an essential tool for human resource development and a necessary ingredient for sustainable socio-economic growth.

Investment in human capital proves that a high level of education is necessary for economic growth and no country can make significant progress if majority of its citizens are illiterate. Rapid progress of East Asian countries was largely attributed to their excellent system of education (Schultz & Becker, 1960). In Pakistan, due attention was not given to the general education of the masses. As a result, Pakistan

lagged far behind other countries of the region in education. The current literacy rate in Pakistan is 51.6% where female literacy rate is 39% while that of male is 64% (Government of Pakistan, 2003). It means that two women out of every three and one man out of every three are illiterate.

Increased commercialization of agriculture has made it a job of highly skilled and educated person who have the ability to foresee the future challenges, can take right decisions at right time and is technically equipped to handle agricultural business on scientific grounds. Unfortunately, agriculture in Pakistan is in the hands of laymen who are unskilled and their productivity is quite low as compared to developed countries. This calls for understanding of the importance of technically trained labor force especially for agriculture sector. With the World Trade Organization (WTO) regime, Pakistan can compete only with a strong base in agriculture sector. So it is imperative to train the manpower according to the requirement of the modern era.

Total number of hospitals, dispensaries, rural health centers and basic health units in Pakistan is 906, 4590, 550 and 5308, respectively. There are 101635 registered doctors, 5068 dentists and 44520 nurses. In terms of population, average doctors/patients ratio is 1:1466, dentists/patients ratio is 1:29405, nurses/patients ratio is 1:3347 and 1517 beds are available per hospital. The total expenditure on health for the year 2002-03 was Rs. 28814 million (both development and current). Similarly, certain programs like Immunization and Oral Rehydration, National Programme for Family Planning and Primary Health Care, National Aids Programme, Women Health Project, etc. have been initiated (Government of Pakistan, 2003).

1. Three main factors necessary for the human resource development are education, health and technical education. Nothing can be achieved if all of these are not enhanced efficiently and effectively. Without maintaining good health status and education, we cannot even maintain the existing status of economic activities. There was a strong need for a study focusing on the current situation of HRD, its impact on farm output and difficulties faced in HRD. Therefore, the study was conducted in rural areas of district Jhang to (i) examine the education and health status in rural areas of District Jhang, (ii) examine the effect of general education, technical education and health status (HRD) on farm output, (iii) identify the problems in HRD, and (iv) provide guidelines to improve economic growth through HRD

METHODOLOGY

Sample selection. The population for the following study was the rural areas of district Jhang. At first stage, four villages from district Jhang were selected as representatives. Out of those four villages, two (Chak No. 262 and Mandi Shah Jewna) were more developed and were near the city as compared to the other two villages i.e. Jalal Pur and Mado Ki. The reason for taking samples from these villages was to select the sample at varying distance from the city. This could enable to see the impact of closeness to city center on HRD status. At the second stage, twenty respondents having their operational size of holding less than or equal to 25 acres were randomly selected from each of the selected village. In this way total respondents numbered to 80.

Collection of data. The data were collected by employing a well designed, comprehensive and pre-tested questionnaire. The questionnaire was prepared in English but due to low literacy level in the rural areas, data were collected by asking questions in the local language by personally interviewing the respondents.

Analysis of data. Data analysis to check the status of general education, technical education and health status was based on %ages and averages. The primary data analysis has been presented in the first part of the results and discussion in which results are presented in comparative terms by considering areas close to and away from the city, and then on overall basis. To monitor the impact of different variables on farm output, multiple regression was done with the following equation.

Agri. Output = f (land holding, value of agri. assets, number of livestock, years of schooling, years of technical education and health status.).

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e$$

Where, Y= Output, X₁= Size of Holding (acres), X₂= Value of Agricultural Assets Owned by the farmers (Rs), X₃= Number of Livestock, X₄= Years of Schooling, X₅= Years of Technical Education, X₆= Health Status/ Number of Sickness Days per year, and e= Error Term

RESULTS AND DISCUSSION

The results of the study are presented in two parts i.e. part one presents the status of the human resource development in the study area. These results have been presented in three dimensions on the basis of closeness or away from the city center to the city centers. In second part of this paper, the impact of the human resource development on the farm output has been presented.

Status of human resource development. Data revealed that the overall literacy rate (57%) of these villages was little above the overall national literacy rate of Pakistan. The possible reason for this higher literacy rate was the small land holdings which forced the people to strengthen themselves by getting education. The results showed that the literacy rate of those respondents selected from the villages away from the city was 50% whereas the literacy rate of the respondents selected from the areas close to the city centers was 64%. The majority of the literate persons were metric or under-metric. This difference in the literacy status was due to the better education opportunities in the areas adjacent to the city centers.

The views of respondent regarding the quality of education were also recorded. It was found that 46% of the respondents were not satisfied with the quality of education and they declared it poor whereas 37.5% of the total respondents considered it good. As far as the two components of the overall study area were concerned, 75% respondents from the areas away from the city declared existing education setup as poor while 37.5% respondents, living in the areas close to the city centers, thought it good, 37.5% declared it medium and only 25% regarded it poor.

Technical education is a very important aspect of the labor force and it guarantees the efficiency of the workers. education and training are the heart of the development efforts. Without HRD, most of the technical innovations remain ineffective. So there is a strong need to improve the knowledge and skills of the labourers that can enhance the agricultural productivity. Unfortunately the level of existing technical education in Pakistan especially in the rural areas is very low. In the study area it was found that 40% of the respondents were technically educated whereas 60% of the respondents were uneducated. About 40% technically educated persons were from educated families and those who were not technically educated came from poor and uneducated families and had small earning sources. In the areas away from the city centers, it was found that only 15% of the respondents were technically educated whereas 85% of them were technically uneducated. In the areas close to the city centers, 65% of the total respondents were technically educated and 35% were technically uneducated.

Health facilities are very important to ensure good physical exposure of the labor force which helps in achieving the stability and continuity in the agricultural productivity. The results of the research showed a dismal and gloomy picture as majority of the respondents (57%)

were not satisfied with the existing health facilities in the rural areas. The situation was more miserable in the areas away from the city centers where 75% of the respondents were not satisfied with the health facilities. In the areas close to the city centers, 60% respondents were satisfied with the facilities whereas 40% were not.

The importance of education for the development of agriculture cannot be overlooked. The respondent's opinion about the importance of education in the development of agriculture was also probed into. The results indicated that about 30% of the respondents were of the view that education is very important, 30% said that it was just important and some people were of the view that education is no more important for the high productivity and 12% did not respond. The respondent's opinion about the importance of technical education in the uplift of agriculture sector was also investigated. Majority of the respondents (50%) were of the view that technical education was a major determinant of the high agricultural productivity whereas 31% thought that technical education was not a confirmed criterion for increased agricultural productivity and 19% of the respondents were indifferent in their views.

Human resource development and farm output. In this research, an attempt was made to estimate the relationship between the farm output and general education, technical education, health facilities. In this regard multiple regression analysis was carried out. The signs of all regression coefficients were in line with the theoretical expectations. Coefficient of determination (R^2) values and F-ratio revealed that the estimated equation was reasonably acceptable on the basis of goodness of fit. Most of the partial regression coefficients were however non significant but the model was significant on overall basis.

Multiple regression equation was estimated as under:

$$Y = 72386.64 + 6784.876 X_1 + 0.101 X_2 + 2406.562 X_3 + 5622.171 X_4 + 9081.7 X_5 + 129.295 X_6$$

(1.822) (3.738) (0.094) (1.664)
(2.192) (0.789) (0.175)

Note: The figures in parentheses are the t-values for the respective coefficients.

$$R^2 = 0.593$$

$$F \text{ Ratio} = 17.722$$

The coefficient of land holding had positive sign value of 6784.88 and was significant at 99% confidence level. This indicated that there was a considerable increase in output due to increase in the landholding. This revealed that due to one unit change in landholding (e.g. increase in land by one acre), the output increased by Rs. 6784.876. The coefficient of agricultural assets was 0.101, although it had positive sign but was non significant. This exhibited that with a change in one unit of agricultural assets, the change in output was Rs. 0.101, which was very low. The reasons for this non-significance relation could be the following.

1. Agricultural assets owned by the farmers may be deliberately out of use or unusable for agricultural purposes.

2. The assets may be very old not according to the requirement of modern technology.

3. Although the agricultural assets may be in good condition as well as according to the modern technology but the farmers had no knowledge of their technical use.

4. Agricultural assets owned by the farmers were not in use due to change in cropping pattern of the area.

The partial regression co-efficient of X_3 (number of livestock) was positive with a value of 2406.562 and was significant at 90% confidence level. This showed that with change of one unit in livestock owned by a farmer, the change in output was Rs. 2406.562. This further showed that there was a strong effect of number of livestock on the farm output. The reason may be that the farmers might had more animals for sale and to buy agricultural inputs. At the same time, animal like bullocks may be used as source of power for land preparation thus contributing to farm output.

The effect of schooling was 5622.171 was positive and was significant at 95% confidence level. This indicated that with one year of extra schooling, the output of a farmer increased by Rs. 5622.171. The possible reasons for are:

1. Proper use of inputs in quantity and at proper time.
2. Use of high yielding varieties.
3. Up to date knowledge of the requirement and use of pests and other requisites, for example preparation of land, number of irrigations, amount and kinds of fertilizers etc.

Technical education variable positive sign value of 9081.57. However, the coefficient was non-significant. This implied that with a unit increase in technical education, farm output increased by 9081.57 rupees. The reasons for its non-significance may be as follow.

1. Although the farmers had general technical training but might not had been trained for the purpose of agriculture.
2. The farmer might be technically trained in the field of agriculture, but due to some reasons they were unable to use their knowledge effectively.
3. It is possible that the quality of technical training was not good and according to the modern technologies.

The co-efficient of health had negative signed value of 129.295 and was non significant. This indicated that although a unit increase in the number of sickness day led to a decrease in the output, but its over all effect on farm output was non-significant. Perhaps in case of the sickness of one laborer, disguisedly unemployed workforce was used more intensively not allowing the output to decline.

SUGGESTIONS

1. Education is the basic input in enhancing the pace of the human resource development. Although it becomes the duty of the government to provide educational facilities but need of the hour is to supplement the government efforts with education centers to be opened in villages by welfare trusts and semi- government organizations. The time and

place of imparting education should be convenient to the stakeholders. These timings should be chosen keeping in view the season and length of the day. Moreover, as the primary education has already been made free and compulsory, this initiative of the government should be strengthened.

2. Training sessions and lectures should be arranged and experts of the concerned field should be consulted to teach the farmers about the emerging issues and young farmers should be convinced to spare their time for these practical based learning activities. The issues selected for these training sessions should be in line with the changing and emerging issues in agriculture. After the training the respondents should be persuaded and supervised. They should be facilitated so that they can apply the acquired skills in their fields.

3. Health facilities should be provided to all persons without any discrimination. Well trained doctors and staff should be provided at local level in the villages. The basic health units and rural dispensaries should be improved and equipped with new and modern implements.

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